

ABSTRACT

An integrated circuit fabricated on a single substrate. The integrated circuit includes a data bus and purpose-specific functional units connected to the data bus. The
5 functional units include a JPEG decoder, a compressed bi-level expander, a halftoner, and a printhead interface. A general-purpose processor may also be connected to the data bus for controlling the functional units. The processor may be connected to run software that coordinates the functional units to receive, expand and print pages.